

Table of contents

Foreword	V
Preface	VI
Preface to the German edition	VII
1. Introduction and historical survey	1
2. Anatomy and topography of the spleen	4
2.1 Vessels and nerves	5
2.1.1 Arterial supply	5
2.1.2 Venous drainage	6
2.1.3 Lymphatic vessels	6
2.1.4 Innervation	6
2.2 Surgical anatomy	7
2.3 Histological structure	9
3. Physiology of splenic function	11
3.1 Hematological functions	11
3.1.1 Hemopoiesis	11
3.1.2 Filtration, catabolic and storage function	11
3.1.3 Reservoir function	12
3.2 Immunological functions	12
3.2.1 Functions in the cellular immune response	12
3.2.2 Functions in the humoral immune response	13
4. Pathological anatomy of the spleen	14
4.1 Splenic anomalies	14
4.2 Splenic diseases	14
4.2.1 Arterial and venous circulatory disorders	14
4.2.2 Storage diseases	17
4.2.3 Inflammatory splenic diseases	18
4.2.4 Hypersplenism	19
4.2.5 Splenic involvement in lymphoproliferative disorders	21
4.2.6 Splenic involvement in myeloproliferative disorders	24
4.2.7 Tumors of the spleen	24
5. Diagnostic procedures	30

6.	Operations on the spleen	36
6.1	Splenectomy	36
6.1.1	Elective splenectomy	36
6.1.2	Splenectomy for trauma	38
6.1.3	Incidental splenectomy	39
6.1.4	Technical splenectomy	40
6.1.5	Accidental splenectomy	40
6.1.6	Complications after splenectomy	41
6.1.7	Sequelae to splenectomy	43
6.1.7.1	Sepsis following splenectomy and its prophylaxis	44
6.2	Organ-conserving procedures	46
6.2.1	Surgical guidelines	46
6.2.2	Organ conservation with traumatic rupture of the spleen	47
6.2.2.1	Classification of splenic rupture	47
6.2.2.2	Nonoperative management	50
6.2.2.3	Using adhesives	51
6.2.2.4	Coagulation techniques	53
6.2.2.5	Parenchymal suture	55
6.2.2.6	Splenorrhaphy with absorbable mesh	55
6.2.2.6.1	Splenorrhaphy in animal experiment	57
6.2.2.6.2	Splenorrhaphy in clinical practice	62
6.2.2.7	Splenic resection	66
6.2.2.7.1	Stapler resection in animal experiment	66
6.2.2.7.2	Clinical use of staplers	68
6.2.2.8	Arterial ligation and catheter embolization	71
6.2.2.9	Heterotopic autotransplantation	73
6.2.3	Organ conservation with accidental splenic rupture	75
6.2.4	Diagnostic and therapeutic splenic resection	75
6.2.5	Complications after orthotopic conservation of the spleen and their treatment	76
7.	Laparoscopic procedures	79
7.1	Diagnostic and emergent laparoscopy	79
7.2	Laparoscopic splenectomy	80
7.3	Laparoscopic partial resection	81
8.	Summary	83
	Acknowledgments	85
	References	86
	Index	99